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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.                | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------------------|------------------|
| 10/532,202  | 04/14/2005  | Steffen Hasenzahl    | 032301.415                         | 6755             |
| 25461 7590 09/21/2009<br>SMITH, GAMBRELL & RUSSELL<br>SUITE 3100, PROMENADE II<br>1230 PEACHTREE STREET, N.E.<br>ATLANTA, GA 30309-3592 |             |                      | EXAMINER<br>GODENSCHWAGER, PETER T |                  |
|   |             |                      | ART UNIT                           | PAPER NUMBER     |
|   |             |                      | 1796                               |                  |
|   |             |                      | MAIL DATE                          | DELIVERY MODE    |
|   |             |                      | 09/21/2009                         | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/532,202

**Applicant(s)**

HASENZAHN ET AL.

**Examiner**

PETER F. GODENSCHWAGER

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2 and 4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

Applicant's reply filed June 10, 2009 has been fully considered. Claims 1, 2, and 4 are amended, and claims 1, 2, and 4 are pending.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Ettlinger et al. (EP 0672731, English machine translation relied upon for citation purposes).

Ettlinger et al. teaches a composition comprising toner powder (pulverulent material) further comprising a pyrogenically prepared silica to which hexadecylsilyl groups are attached (surface and structurally modified silica) (Pg. 1, Lns. 15-25 and Pg. 1, Lns. 30-32 of English machine translation). Ettlinger et al. further teaches that the resulting silica has a primary particle size of 7 nm (anticipating the claimed range of 5-50 nm), a BET surface area of 253 m<sup>2</sup>/g (anticipating the claimed range of 25-400 m<sup>2</sup>/g), a pH of 4.3 (anticipating the claimed range of 3-10, and a carbon content of 1.3% (anticipating the claimed range of 0.1-25%) (see Pg. 1, Lns. 25-30, Pg. 2 Ln. 2 of English Machine translation, and Table 2, Entry "A 300", and Tables 3 and 4,

Entries "2" of EP 0672731 comprising data of Aerosil 300 of particle size 7 nm, treated with hexadecyltrimethoxysilane).

Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Ettlinger et al. (EP 0672731, English machine translation relied upon for citation purposes).

Ettlinger et al. teaches a method of adding to a toner powder (pulverulent material) a pyrogenically prepared silica to which hexadecylsilyl groups are attached (surface and structurally modified silica) (Pg. 1, Lns. 15-25 and Pg. 1, Lns. 30-32 of English machine translation). Ettlinger et al. further teaches that the resulting silica has a primary particle size of 7 nm (anticipating the claimed range of 5-50 nm), a BET surface area of 253 m<sup>2</sup>/g (anticipating the claimed range of 25-400 m<sup>2</sup>/g), a pH of 4.3 (anticipating the claimed range of 3-10, and a carbon content of 1.3% (anticipating the claimed range of 0.1-25%) (see Pg. 1, Lns. 25-30, Pg. 2 Ln. 2 of English Machine translation, and Table 2, Entry "A 300", and Tables 3 and 4, Entries "2" of EP 0672731 comprising data of Aerosil 300 of particle size 7 nm, treated with hexadecyltrimethoxysilane).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ettlinger et al. (EP 0672731, English machine translation relied upon for citation purposes) in view of Koehlert et al. (US Pat. No. 5,928,723).

Ettlinger et al. teaches a composition comprising toner powder (pulverulent material) further comprising a pyrogenically prepared silica to which hexadecylsilyl groups are attached (surface and structurally modified silica) (Pg. 1, Lns. 15-25 and Pg. 1, Lns. 30-32 of English machine translation). Ettlinger et al. further teaches that the resulting silica has a primary particle size of 7 nm (anticipating the claimed range of 5-50 nm), a BET surface area of 253 m<sup>2</sup>/g (anticipating the claimed range of 25-400 m<sup>2</sup>/g), a pH of 4.3 (anticipating the claimed range of 3-10, and a carbon content of 1.3% (anticipating the claimed range of 0.1-25%) (see Pg. 1, Lns. 25-30, Pg. 2 Ln. 2 of English Machine translation, and Table 2, Entry "A 300", and Tables 3 and 4, Entries "2" of EP 0672731 comprising data of Aerosil 300 of particle size 7 nm, treated with hexadecyltrimethoxysilane).

Ettlinger et al. does not teach the composition where the pulverulent material is a fire-extinguishing powder. However, Koehlert et al. teaches that surface modified, pyrogenically prepared silica with a BET surface area of 50-400 m<sup>2</sup>/g is a useful anti-caking additive in fire extinguishing powders as well as toners, and a rheology modifier in resins, and silicone rubbers (1:45-2:5, 2:15-2:35). Koehlert et al. and Ettlinger et al. are analogous art because they are concerned with the same field of endeavor, namely surface and structurally modified silica for use as rheology control agents and free flow agents. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use the fire extinguisher powder of Koehlert et al. as the pulverulent material of Ettlinger et al. and would have been motivated to do so because one would have a reasonable expectation of success in employing the silicas of Ettlinger et al. in a fire extinguishing powder to improve the pourability as Koehlert et al teaches that modified silicas that are useful in toner powders, and as rheology modifiers in resins and silicone rubbers are also useful for fire extinguishing powders (1:45-2:5, 2:15-2:35), and Ettlinger et al. teaches that the silicas are useful as a pourability (flow) improver in toner powder and as a thickener (rheology modifier) in resins and silicone rubbers (Pg. 1, Lns. 30-33 of English machine translation).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 2, and 4 and the amendment to limit the structure-modified silicas to having octylsilyl and/or hexadecylsilyl groups have been considered and sufficiently responded to in the new grounds of rejection above.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER F. GODENSCHWAGER whose telephone number is (571)270-3302. The examiner can normally be reached on Monday-Friday 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/  
Supervisory Patent Examiner, Art Unit 1796

/P. F. G./  
Examiner, Art Unit 1796  
September 16, 2009